

Application No. 10/056,889

REMARKS/ARGUMENTS

This Amendment and the following remarks are intended to fully respond to the office action mailed August 23, 2007. In that Office Action claims 1-23 were examined, and all claims were rejected. Claim 3 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 1-3, 6-8, 10-18, 20, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Thread Topic (TT), "Re: CERT_REQ_PAYLOAD usage" (hereinafter "Thread Topic") in view of Jinmei, "How to write UDP/IPv6 applications that care about path MTU," (hereinafter "Jinmei") and further in view of in view of Kent et al., "Fragmentation Considered Harmful," (hereinafter "Kent"). Claims 22 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Thread Topic, Jinmei, and Kent in view of Cert et al., "A Protocol for Packet Network Intercommunication," (hereinafter "Cert").

In this Response, claims 1-3, 6, 11, 13, 16, 18, and 22 have been amended. Claims 5, 14, 15, 17, and 20 have been canceled, and no claims are newly added. Reconsideration of the rejections, as they might apply to the original and amended claims in view of these remarks, is respectfully requested.

Interview Summary

Tim Scull, Danielle Johnston Holmes, and Jack Bradley thank Examiner Jeffery Williams for the in-person interview conducted on December 12, 2007. During the interview, Mr. Scull, Ms. Johnston Holmes and Mr. Bradley discussed documents that have been submitted under seal in the present application for consideration by Examiner Williams. As noted in the interview, the documents relate to litigation involving the assignee of the present application, Microsoft Corporation. The documents are confidential and therefore cannot be submitted under ordinary IDS procedures. Mr. Scull and Ms. Johnston Holmes provided Examiner Williams with a brief explanation of a number of the documents.

During the interview, the claims of the present application were only briefly discussed.

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The discussion did not lead to an agreement on the allowance of claims. However, the current amendments are being made in light of the discussion with Examiner Williams.

Specification Rejection

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. The office action alleges that the applicant has not pointed out where in the specification there is a written description of the element of claim 3 stating "*wherein the fragmenter module does not split the IKE data packets unless no response to a previously-sent IKE data packet has been received.*" Applicants respectfully disagree. As noted in the previous response, both Fig. 8 and the corresponding description found in the specification from page 18, line 15 to page 19, line 22, provides adequate description and support for the noted element of claim 3.

Claim Rejections – 35 U.S.C. § 112

Claim 3 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. As noted above and in the previous office action response, the specification from page 18, line 15 to page 19, line 22 adequately describes the element of claim 3 objected to in the office action. Page 19, lines 4-7 of the specification states, *inter alia*, "If a suitable response has been received, the fragmenter 150 will simply permit the process to continue according to the usual IKE protocol, step 183. According to this logic, no fragmentation will occur if the IKE payloads are successfully transmitted." Furthermore, page 20, lines 1-6 of the specification states, "If, however, the fragmenter 150 still does not receive an appropriate response after one or more attempts to retransmit the original IKE payload, step 185, it will determine that the IKE payload exceeds the MTU for the particular network or application. In this case, the transmitter module 151 will either begin the fragmentation process or it will cause the initiator node's IKE protocol stack to abort the process of establishing an SA with the responder node." This language provides written description of the noted element of claim 3.

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Claim Rejections – 35 U.S.C. § 103

Claims 1-3, 6-8, 10-18, 20, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over some combination of the Thread Topic, Jinmei, Kent and Cert references. Applicants traverse the rejection, because the cited references fail to teach all the elements of the amended claims.

Claim 1 has been amended to recite “receiving a vendor identification value” and “in response to receiving the vendor identification value, determining that IKE fragmentation is capable.” None of the cited references disclose this feature of claim 1.

As acknowledged in the office action, the Thread Topic reference does not even teach that an IKE application should fragment a packet (*see Office Action 8/23/07*, page 4) much less “determining that IKE fragmentation is capable,” as recited in claim 1. The Jinmei reference teaches only that an application can determine a path maximum transmission unit (MTU) to keep packets below the path MTU. Jinmei fails to teach “receiving a vendor identification value” and “in response to receiving the vendor identification value, determining that IKE fragmentation is capable.” Finally, the Kent reference provides a description of the disadvantages of internetwork fragmentation of data packets. The Kent reference also fails to describe the use of a vendor identification value to determine whether IKE fragmentation is capable. The Cert reference fails to compensate for the deficiency in the other references. The Cert reference describes a protocol that can be used to share resources that are in different packet switching networks. The protocol includes a mechanism for dealing with duplicate packets and packets that are retransmitted. The Cert reference however does not teach that the use of a vendor identification value to indicate IKE fragmentation capability.

For the reasons described above, claim 1 is patentable over the combination of the Thread Topic, Jinmei, Kent, and Cert references. Also, claim 2 depends on claim 1 and is allowable for at least the same reasons.

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Amended claim 3 recites, *inter alia*, “wherein each of the plurality of smaller data packets includes a header formatted according to the IKE protocol and state information for network address translator processing.” As noted in the specification at page 22, lines 13-16, previous IKE fragments could not be tracked by network address translators (NATs) or firewalls. Including state information within the smaller IKE packets, as claimed in claim 3, ensures that “each IKE fragment will have the information required by a NAT [network address translator] or firewall for processing . . .” *Specification*, page 23, lines 10-12. None of the Thread Topic, Jinmei, Kent and Cert references, alone or in combination, teach including state information within an IKE packet to allow it to be processed by a NAT. The feature of including state information within smaller IKE packets makes claim 3 patentable over the references cited in the office action.

Amended claim 6 recites “sending a vendor identification value, the vendor identification value indicating IKE fragmentation capability.” As indicated above with respect to claim 1, none of the cited references teach the use of a vendor identification value for use in indicating an IKE fragmentation capability. Therefore, claim 6 is allowable over the Thread Topic, Jinmei, Kent, and Cert references for the same reasons as noted above with respect to claim 1. Claims 7, 8, and 10 depend upon claim 6 and are allowable for the same reasons.

Claim 11 has been amended to recite “means for adding a separate IKE fragment header to each of the smaller packets; means for adding state information to each of the smaller packets for network address translator processing; means for adding a separate User Datagram Protocol header to each of the plurality of smaller packets; and means for transmitting each of the plurality of smaller packets over a network.” The system claimed in claim 11 requires a means for “adding state information to each of the smaller packets for network address translator processing.” The references cited in the office action fail to teach such a system. As noted above with respect to claim 6, none of the cited references teach the use of state information for use in processing the packet by a network address translator and therefore do not teach a system

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as claimed in claim 11. Claim 12 depends upon claim 11 and is allowable for at least the same reasons.

Claim 13 has been amended, and now recites, *inter alia*, "adding state information to each of the plurality of smaller packets for network address translator processing." The method of claim 13 is allowable over the Thread Topic, Jinmei, and Kent references because those references fail to teach adding state information to smaller packet to allow the packets to be processed by a NAT. Claim 16 depends upon claim 11 and is allowable for at least the same reasons.

Claim 18 has been amended to recite "receiving a vendor identification value; in response to receiving the vendor identification value, determining that IKE fragmentation is capable;" and also "adding state information to each of the plurality of smaller packets for network address translator processing." As indicated above, the cited references, alone or in combination fail to teach the use of a vendor identification value to indicated that IKE fragmentation is capable, and they also fail to teach the use of state information to allow the smaller packets to be processed by a NAT.

Claim 22 has been amended to recite "sending a vendor identification value, the vendor identification value indicating IKE fragmentation capability." As indicated above with respect to claim 1, none of the cited references teach the use of a vendor identification value for use in indicating an IKE fragmentation capability, as required by claim 22. Therefore, claim 22 is allowable over the cited references. Claim 23 depends upon claim 22 and is allowable for the same reasons.

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Conclusion

This Amendment fully responds to the office action mailed on August 23, 2007. Still, the office action may contain arguments and rejections that are not directly addressed by this Amendment because they are rendered moot in light of the preceding arguments in favor of patentability. Hence, failure of this Amendment to directly address an argument raised in the office action should not be taken as an indication that the Applicant believes the argument has merit. Additionally, failure to address statements/comments made by the Examiner does not mean that the Applicants acquiesce to such statements or comments. Furthermore, the claims of the present application may include other elements, not discussed in this Amendment, which are not shown, taught, or otherwise suggested by the art of record. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

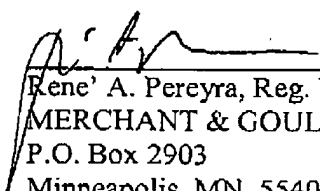
It is believed that no further fees are due with this Amendment. However, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment with respect to this patent application to deposit account number 13-2725.

In light of the above remarks and amendments, it is believed that the application is now in condition for allowance and such action is respectfully requested. Should any additional issues need to be resolved, the Examiner is requested to telephone the undersigned to attempt to resolve those issues.

Respectfully submitted,

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